

# **The City of Durham 10 Year Comprehensive Solid Waste Management Plan Summary**

Revised December 21, 2009

## **The Solid Waste Management Plan**

The solid waste management plan update for the City of Durham was prepared in accordance with N.C. General Statute 130A-309.09A(b). It's a ten year planning document with mandatory updates every three years. City Council voted to approved the most recent update on November 2, 2009. The approved solid waste plan can be viewed on the City's Web site at <http://www.durhamnc.gov/departments/solid/regulations.cfm>.

## **Issues to Consider**

The Solid Waste Management Department (SWM) is committed to providing safe and environmentally sound disposal options. There are a variety of ways that this could potentially be achieved. Below are some pressing issues that the Department will need to address in the next decade.

- SWM currently uses a Virginia landfill for disposal of solid waste. Although it's in another state, it is geographically closer to Durham than other North Carolina landfills. Using a NC landfill would help keep jobs in the state, but disposal costs may increase due to the longer hauling distances. Another consideration is that NC tends to have better environmental oversight than VA.
- Regardless of where the waste is finally disposed, there needs to be a "transfer station" within the City of Durham, where garbage can initially be brought. SWM expects to exceed the processing capacity of the current facility within the next 10 years. A new facility is estimated to cost over \$10 million to build. What's the best way to finance such a facility? Does it make sense to have a separate facility for residents and large business? Should a joint partnership with other local governments or private companies be established to build a regional facility?
- The household hazardous waste facility does not accept any waste from small businesses. Changing that would be a benefit to the business community but has the potential to expand operating costs dramatically. In addition, the greater volumes may make it necessary to relocate the facility, which will lead to additional costs.
- It may be possible to expand the list of items accepted for recycling. However, some potentially recyclable items have no market value or may require shipment across the country for processing. It may cost more to recycle the item than to landfill it. In this case, is it still worth recycling?
- Restaurants and bars with certain types of liquor licenses in NC are required to recycle their beverage containers or risk losing their ABC license. This is a state ordinance and local governments are not required to provide any enforcement or any collection. But should we do so?

- Starting in January 2011 it will be illegal for businesses and residents to dispose of televisions and old electronics in a NC landfill. These items are currently accepted at no charge at the City's Household Hazardous Waste Facility but no curbside collection of these items is currently available. Last year, Electronic Waste (e-waste) disposal cost the City nearly \$25,000. That figure is expected to grow. Should a special fee be implemented to cover e-waste disposal? If not, how should this program be funded?
- How can we best provide recycling in City parks and at public outdoor events?
- Although there is a disposal ban on certain targeted recycling, there is no mandatory recycling ordinance. Should there be one? And if so, how do we enforce it?
- Recycling drop-off centers were plagued with illegal dumping and contamination issues and were closed in 2009. However, they were often used by residents of apartment complexes and small businesses who did not have private collection; how does SWM best address their needs? Should the City create staffed drop-off centers? Should the City mandate that all apartments hire a private recycling firm? Should the City provide tax payer subsidized recycling collection at apartment complexes?
- The City provides no oversight over any private firm involved in garbage or recycling collection. Should involvement be a priority for the City? To what legal extent can the City be involved? And if the City does become involved, how do we fund such efforts?
- According to the Solid Waste Association of North America (SWANA) the minimum suggested education and outreach budget for recycling is \$1 per household per year for existing programs and \$3 for new programs. However, the City typically only spends about 7% of the recommend amount. How do we make up that funding shortfall?

### ***Report on Waste Reduction Activities***

The City only provides garbage and recycling services to a small portion of the community, mostly single family homes and some small businesses. For this portion of the waste stream, our recycling activities are quite good, and we divert about 20% of our potential waste to recycling. However, the overall amount of waste in the entire City comes from a variety of sources, such as schools, retail businesses, apartments, restaurants, and construction activities. When we examine the overall waste activities, the results are not as positive.

In a county wide analysis, we look at how much waste is currently landfilled and compare it to the amount of waste that has been landfilled in previous years. The City of Durham uses fiscal year 1988-1989 as our base year for tracking. We choose that year because it's when curbside recycling was introduced in the City. When we compare FY 07-08 to the base year of FY 88-89 and adjust for population, the amount of waste we landfill has dropped by only about 8%.

**Durham County, North Carolina**  
**TOTAL WASTE DISPOSED in the entire county**  
**Base Year FY 1988-89 Disposal Rate 1.31 Tons/Person/Year**

<b>Fiscal Year</b>	<b>Total County Tonnage</b>	<b>MSW Tonnage</b>	<b>C&amp;D Tonnage</b>	<b>County Population</b>	<b>Per Capita Disposal</b>	<b>Tons Change From Base Year</b>	<b>% Change From Base Year</b>
<b>01-02</b>	260,680	210,810	16,104	228,086	1.14	-0.17	12.76%
<b>02-03</b>	298,420	217,436	53,179	233,548	1.28	-0.03	2.46%
<b>03-04</b>	295,594	239,334	44,358	236,088	1.25	-0.06	4.42%
<b>04-05</b>	308,097	272,273	35,030	238,865	1.29	-0.02	1.54%
<b>05-06</b>	292,729	264,075	33,531	242,210	1.21	-0.10	7.74%
<b>06-07</b>	310,443	288,261	37,473	246,824	1.26	-0.05	3.99%
<b>07-08</b>	307,725	292,043	41,970	254,740	1.21	-0.10	7.79%

*All figures, including population estimates are taken from the DURHAM COUNTY WASTE DISPOSAL Reports (<http://www.wastenotnc.org>) that are created by NCDENR based on annual reports that all solid waste facilities are required to file with the state.*

**City of Durham Residential Recycling Diversion**

<b>Fiscal Year</b>	<b>Recycling Tons</b>	<b>MSW Tons</b>	<b>Total Waste</b>	<b>Recycling Diversion</b>
<b>08-09</b>	12,297	49,310	61,607	19.96%
<b>07-08</b>	11,541	48,932	60,473	19.08%
<b>06-07</b>	11,501	46,596	58,096	19.80%
<b>05-06</b>	12,783	45,910	58,693	21.78%

## Goals and Actions

**Goal 1** – Develop a Solid Waste Management Plan that is in conformance with state requirements and with local objectives.

Issue	Status
<b>New state laws banning pallets in landfills in effect 10/01/2009.</b>	Since we are currently using an out of state landfill, we may legally continue to landfill pallets. We will investigate processing them at the new yard waste facility in 2010.
<b>New state laws banning computers &amp; televisions (e-waste) in landfills in effect 01/01/2011.</b>	The City already has an e-waste program in place at the Household Hazardous Waste facility. Televisions are currently collected at the curb as bulk waste and are not recycled.
<b>New state laws banning plastic bottles in landfills in effect 10/01/2009.</b>	The City already accepts plastic bottles as part of the curbside recycling program.
<b>Enforcement of Disposal Ban Ordinances</b>	The City has one enforcement officer and plans to hire two more in 2009.

**Goal 2** – Identify any deficiencies in existing solid waste management programs .

Issue	Status
<b>All unstaffed recycling drop-off centers were closed in July 2009.</b>	This closure saved taxpayers money and reduced illegal dumping. But it created difficulty for apartment residents who relied on the centers.
<b>Switched to bi-weekly recycling program, using City employees to collect.</b>	Ceasing to use a private contractor saved taxpayer money. Larger carts should lead to an increase in recycling collected.
<b>Close the City land clearing and inert debris landfill (LCID).</b>	The LCID stopped accepting waste a few years ago, but is still in the process of being legally closed (capped). Work is expected to be completed by December 2009.
<b>Household Hazardous Waste (HHW)</b>	Operating hours increased to 5 days per week. We are also considering relocating the facility for space reasons.

**Goal 3** – Develop local reduction goals and programs for the City.

Issue	Status
<b>Public Encouraged to Reuse ( Swap Shop )</b>	The City operates a Swap Shop at 2115 E. Club Blvd. However, the existence of this facility is not widely known. We need to increase publicity of this facility.
<b>Public Encouraged to Recycle</b>	Recycling bins are available at some public City festivals, but not all of them. There are no pedestrian recycling cans (such as bus stops) at this time.

<b>City Recycling Purchasing Policy</b>	The City has an internal Waste Reduction Policy that require purchases be made of recycled material whenever possible.
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**Goal 4** – Develop and implement a comprehensive, ongoing public education program and encourage public participation in the long-term planning process.

<b>Issue</b>	<b>Status</b>
<b>Education in the Schools</b>	The City works with private, public, and charter schools, teaching children early on to reduce, reuse, and recycle as requested. There is no standard City wide recycling curriculum in the schools. Schools are managed by the County and not the City.
<b>Public Outreach and Education</b>	The City occasionally works with Keep Durham Beautiful on projects. Staff also attends PAC and INC meetings. Staffing resources and limited advertising funds have reduced our effectiveness in this area.
<b>Employee Training</b>	Each new City employee receives training on the importance, expectations, and policies of reduce, reuse, and recycle in the workplace.
<b>Green Initiatives</b>	Each City department has a representative on the Green Team. The team meets monthly to discuss green initiatives that will benefit all the citizens of Durham.

**Goal 5** – Continue the solid waste management process so that the feasibility of future options can be thoroughly investigated, and recommendations based on those investigations can be presented to the participating jurisdictions for review and adoption.

<b>Issue</b>	<b>Status</b>
<b>Disposal Solutions</b>	The City does not have, nor does it intend to have a landfill or incinerator in the near future. We currently operate a transfer station. However, our transfer station is quite small and is not expected to meet our growing needs in the future.
<b>Household Hazardous Waste (HHW)</b>	As the name implies, we only accept wastes from “households.” We plan to explore the possibility of taking waste from small businesses in the future. However, if that were to occur we would likely need to relocate for space issues.
<b>Yard Waste</b>	The yard waste facility is currently closed. We expect to reopen in January 2010.